

REMARKS

Claims 16, 25, 28 and 29-32 have been rejected under 35 USC 103(a) as unpatentable over Berger in view of Eriksson. The rejection is moot in view of the amended claims 33 and 34, correspond to canceled claims 16/21 and 16/22. Claims 36 and 37 are also similar. No new matter has been added.

Claims 17-24 and 26-27 have been rejected under 35 USC 103(a) as unpatentable over Berger in view of Eriksson, further in view of Yun. The rejection is respectfully traversed for the same reasons presented in the arguments above, and for the following reasons.

The Examiner comments, on page 6 of the Office Action, that claims 21 and 22 are disclosed since Yun shows “puncturing and repetitions sequences (see Figures 8a through 15b). The Examiner does not see unexpected results by using the puncturing and repetition patterns as shown by the above claims.” However, the Examiner fails to address that the puncturing pattern is embodied such that 8 of 48 bits are punctured, the eight bits being 1, 2, 4, 8, 42, 45, 47 and 48, or 31 of 111 bits punctured, the bits being 1, 2, 3, 4, 5, 6, 7, 8, 12, 14, 15, 24, 42, 48, 54, 57, 60, 66, 69, 96, 99, 101, 102, 104, 105, 106, 107, 108, 109, 110 and 111. Moreover, whether the results are unexpected or not, the applied references simply fail to disclose these limitations.

Assuming *arguendo* that the Examiner believes these features are disclosed, a discussion of the puncturing and repetition method of the invention begins on page 12 of the preliminary amendment, last paragraph. By contrast with methods in which the puncturing rate constantly increases up to the ends, this method leads to a result which is not expected *per se* as one would expect that the reliability of the coded bits constantly decreases towards the ends. Rather, by aligning the puncturing patterns specifically to the “weak” bits, one can improve the coding. By using a heuristic method the follow occurs: the effect of the puncturing/repeating of a coded bit on the underlying information bits to be approximated via newly defined heuristic metric, specific bits to be selected explicitly and for each convolution code which are to be punctured or repeated, and the number of the rate matching patterns to be investigated to be greatly restricted (see, for example, page 15 of the preliminary amendment). See also, page 17, line 22 – page 18, line 7 of the preliminary amendment and corresponding Figures 2, 4, 6 and 10.

In view of the above, Applicants submit that this application is condition for allowance. An indication of the same is solicited. The Commissioner is hereby authorized to charge deposit

account 02-1818 for any fees which are due and owing, referencing Attorney Docket No. 112740-1002.

Respectfully submitted,

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